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FACT SHEET

L-962

KEYS TO PROFITABLE BROILER PRODUCTION

In 1970, Texas ranked seventh among the states with an estimated 185 million (6 percent) of the nearly 3 billion broilers produced in the United States. The broiler industry has become integrated and industrialized with an outlook for continued growth as modest priced broiler meat gains a larger share of the food dollar.

Broiler production is concentrating into larger units. Most broilers are raised on contract with integrated firms. The broiler industry is an intensified type of agriculture brought about by the application of production, processing and marketing knowledge.

One broiler producer can care for 50,000 broilers in houses equipped with mechanically-operated feeders, waterers and side-wall curtains. He will need supplemental help for house cleaning, vaccination, debeaking, emergencies and relief. Broiler growing contracts usually provide incentives for good broiler health, growth and feed conversion to reward good husbandry practices.

Broiler production depends upon good environment through adequate housing. A floor pad 1 to 2 feet above the surrounding area with graded drainage protects against surface water. A house width not exceeding 32 feet permits summer breezes through the house. Eight foot side walls with 5 or 6-foot curtains provide ventilation. Insulation under the roof protects against summer sun and heat loss during the winter. (See Poultry House Plan 509).

A health program is fundamental to successful broiler production. It includes "all in-all out" quarantine and isolation of each flock. Limit each flock to one age and from one source. Do not permit other poultry on the premise. These practices increase the chances of maintaining a healthy flock throughout the growing period.

Prepared by Extension poultry specialists, Texas A&M University.

KEYS

- Start with chicks from pullorum-typhoid clean and MG tested breeder flocks of desired genetic ability. Successful integrated broiler firms have an effective program for producing clean hatching eggs, and maintaining clean hatchery and chick delivery facilities.
- Between each flock of broilers, clean the house completely – ceiling, rafters, walls, floor and surrounding premise. Also repair, scrub and disinfect all equipment – waterers, feeders and brooders.

  Between broods, where built-up litter is used, remove all caked, wet litter and replace with fresh clean litter. In spring or early summer it is important to thoroughly clean out the house, removing all the litter. This prevents the problem of heat production by built-up litter adding to the bird's discomfort in hot weather.
- After each clean out, cover the floor with clean litter at least 3 inches deep. Wood shavings, processed pine bark, cane litter and rice hulls are suitable litter materials. Avoid moldy or musty litter to prevent aspergillosis (mold growth in the bird's respiratory tract).
- Provide 1 square foot of floor space for broilers started during March through August. Crowding can be hazardous during extreme summer heat. During September through February, .8 square foot of floor space may be used.
- Gas, oil and electric brooders should have sufficient heating capacity to maintain comfortable hover and room temperatures in the coldest weather. Manufacturer's instructions and integrator experience determine the number of birds to place under each hover.

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In warm weather, wire guard rings placed 4 feet from the edge of the hover prevent chicks from straying from the brooder the first 4 days. When the temperature drops below 70 degrees use solid guard rings such as rolled cardboard for 4 days. After 4 days move guard rings back an additional 3 feet for 3 days before removing them entirely.

- Before the chicks arrive, have the brooder house ready with brooders operating and regulated to the manufacturer's recommended temperature. Regulate each brooder's thermostat range to allow a maximum temperature spread of only 5 degrees F. Fill waterers and feeders and set up guard rings.

  Distribute chicks around each brooder. If undisturbed, chicks will quickly settle and be off to a good start. Lower the brooder temperature about 2 degrees every 3 days until 70 degrees is reached and the chicks are well feathered. Observe chick behavior to determine adjustments needed for comfort.

- Bulk feed bins and mechanical feeders provide substantial labor savings. Operate according to the manufacturer's instructions.

- Feed trough recommendations: (two-thirds as much with tube feeders)

Age	Feed per bird (inches)	Depth of feeder (inches)
Through 2 weeks	1	2
3 through 6 weeks	2	3½
7 weeks to market	3	3½

Most integrated broiler firms operate their own feed mill and deliver bulk feed to the grower's farm as ordered. Formulation of broiler rations is a sophisticated job done by skilled nutritionists. Grain (sorghum grain and yellow corn) make up about 60 percent of the ration and protein sources (mostly soybean oil meal plus a source of animal protein) make up 25 to 30 percent of the ration. Other ingredients are mixed in small but exact amounts to meet the nutritionist's precise specifications for rations that will result in maximum growth at minimum cost.

Rations without added fat contain about 23 percent protein for the starter and 21 percent protein for the finishing rations that are normally fed from the sixth week to market age. With fat added to the ration the protein percent is increased proportionately. A coccidiostat is normally included in the ration and used according to the drug manufacturer's instructions. Full-feed broilers continuously to obtain early market weight and condition. Fill feeders to overflowing the first week to get every bird on feed. Then reduce the feed level to one-third full to prevent waste by "billing."

- Water trough recommendations:

Age	Water space per bird (inches)
Through 2 weeks	1/3
3 through 5 weeks	2/3
6 weeks to market	1

For the first 10 days of brooding supply water in clean, 1 gallon, wide-based fountains with one per 100 chicks. Then add mechanical water troughs. Move the fountains gradually toward the troughs and remove them as the chicks learn to use the troughs. Five 8-foot mechanical waterers per 1,000 chicks are recommended. Distribute the watering equipment evenly over the house. Keep the lip of the water trough adjusted to the shoulder height of the growing broilers. This helps prevent water spillage and keeps out debris.

- If daily records show a decline in feed consumption or birds show any sign of "off" condition, contact your servicemen for a prompt, qualified diagnosis and immediate corrective treatment. Over 1 percent mortality per month is excessive. Remove and kill the obvious culls. Debeaking helps to control feather picking and cannibalism and improves feed conversion. Debeaking is normally performed by integrator firm personnel. Use an incinerator or disposal pit for dead birds.

- Poultry house ventilation requires constant attention. During hot weather use any available breeze to facilitate cooling the birds. During cooler weather adjust wall openings to allow enough air movement to keep the litter dry and at the same time avoid excessive drafts which chill the birds. During quick weather changes make prompt corrective adjustments of the ventilation curtains, panels and windows.

  Prevention of breast blisters requires an adequate amount of loose, dry litter. This is a special problem in colder weather when ventilation is reduced to maintain warm temperatures within the house. Supplemental heat may

be necessary during colder temperatures to provide the warm air necessary to carry the surplus water from the litter out of the house through well-managed ventilation practices.

- Provide artificial night lights from sundown to 4 a.m. throughout the broiler growing period. The abrupt 4 a.m. cut off of the lights each night will condition the broilers so they will not stampede in the event of a power failure. Enough light for 1 foot candle at floor level over the entire house is recommended. Use clean, 50-watt bulbs with shallow dome reflectors 7 feet above the floor and spaced 14 feet apart.

- Before catching and loading broilers for the trip to the processing plant, remove all equipment from the catching area. Handle each birds with care to prevent bruises. Needless rough handling during the catching operation can reduce or wipe-out the profit of the entire flock due to necessary downgrading on the processing line. When this occurs, everyone loses – the grower, processor and consumer.

- Good management requires factual information about each flock's performance. As a broiler grower, set up a system for determining the the fixed investment and depreciation schedule. The use of form D-794, *Continuous Depreciation Schedule,* will be valuable in determining and maintaining information on the actual fixed costs of the broiler operation. Your county agricultural agent has copies of this schedule.

  Set up a procedure for keeping track of variable or "out of pocket" expenses for each brood of broilers and recap these on a flock and annual basis. The successful broiler grower studies the information provided by the integrator on each flock of broilers when contract payments are made. This provides information on opportunities for estimating the grow-out earnings on subsequent flocks.

  The Contract Broiler Result Summary provides an outline for recapping and analyzing the performance factors related to the earnings of each flock.

A unit of East Texas broiler houses

Lot number_____

House number_____

CONTRACT BROILER RESULT SUMMARY

Costs (variable)	Total Value	Per Pound Sold
Litter	$_____	$_____
Fuel	$_____	$_____
Electricity	$_____	$_____
Hired labor	$_____	$_____
Repairs and maintenance	$_____	$_____
Other	$_____	$_____
Other	$_____	$_____
Total variable costs	$_____	$_____
Costs (fixed)		
Depreciation on buildings and equipment	$_____	$_____
Taxes	$_____	$_____
Insurance	$_____	$_____
Other	$_____	$_____
Total fixed costs	$_____	$_____
Total all costs	$_____	$_____
Income — contract payment	$_____	$_____
Earnings — for grower and invested capital	$_____	$_____

Statistical

Chicks hatched — date_____ head delivered_____

Broilers marketed — date_____head_____net weight_____

Age of broilers marketed_____days livability_____% Avg. wt._____

Feed used: starter_____lb. grower_____lb. total_____lb.

Pounds of feed to produce a pound of broiler_____

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